Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 to 7 CANCEL

8. NEW

A knock sensor for an internal combustion engine with an electronically evaluated vibration sensor that is realized in the form of a piezoresistive amorphous carbon layer (5; 8; 9; 10) with a thickness between 10 nm and 500 µm, particularly between 10 nm and 20 µm, wherein this layer is rigidly applied onto a surface section of a base body (1, 4, 4', 10), wherein

- the knock sensor comprises at least one spring washer (4, 4') that is or can be tensioned relative to the internal combustion engine, and in
- a piezoresistive amorphous carbon layer (5) is applied onto at least one face of the at least one spring washer (4; 4').

9. NEW

The knock sensor according to Claim 8, wherein

the carbon layer measures between 10 nm and 500 µm, preferably between 10 nm and 20 µm.

10. NEW

The knock sensor with a seismic mass (3, 3') according to Claim 8, wherein

the at least one piezoresistive amorphous carbon layer (8; 9; 10) is arranged between the seismic mass (3, 3') and an abutment (1) or (2) that respectively is or can be rigidly connected to the internal combustion engine.

11. NEW

The knock sensor according to claim 8, wherein

at least two spring washers (4, 4') are arranged in series with or without a seismic mass (3') provided in between.

12. NEW

The knock sensor according to claim 10, wherein

the seismic mass (3, 3') is integrated into at least one spring washer (4, 4').

13. NEW

The knock sensor according to claim 8, wherein

that said knock sensor is provided with means for a telemetric signal tap.